

# **Dryden Centerwide Procedure**

## Code S

# **Aircraft Incident Response Procedure**

(With change 07-21-08)

Electronically approved by Assistant Director for Management Systems

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#### 1.0 PURPOSE OF DOCUMENT

This document coordinates and outlines the necessary actions for offices, directorates, and individuals during the initial response to a mishap or close call involving aviation assets.

#### 2.0 SCOPE & APPLICABILITY

The procedure applies to all IRIS-reportable (NASA Incident Reporting Information System) mishaps and close calls (incidents) associated with aviation activity under the control of DFRC flight operations or its on-site contractors. It is applicable to all aviation activity, ground, and flight for operations that are local, deployed or in a cross-country status. This procedure may be replaced and or supplemented by program / project contingency plan.

#### 3.0 PROCEDURE OBJECTIVES & METRICS

This procedure coordinates and specifies actions across the Center to ensure the following objectives in a timely manner:

Objective:	Dispatch of medical, crash, and rescue capabilities	
Metric:	Verify dispatch of crash & rescue within two hours of incident notification to DFRC S&MA	
Objective:	Preservation of initial investigation evidence	
Metric:	Evidence not associated with crash site impounded within 24 hours	
Objective:	Completion of external reporting requirements	
Metric:	All required reporting met within prescribed time limits	
Objective:	Notification of next of kin personnel	
Metric:	: Next of kin notified within 24 hours of death verification	
Objective:	Response to initial emotional impacts to personnel	
Metric:	No metric	

Data from checklists during incidents will be used to develop metrics indicating the compliance with NPR 8621.1 initial reporting requirements.

#### 4.0 RELEVANT DOCUMENTS

#### 4.1 Authority Documents

NPR 8621.1 Mishap Investigation & Reporting

#### 4.2 Reference Documents

DOP M-101 WATR Inflight Emergency Standard Operating Procedure

#### 4.3 Forms

NTSB 6120 Mishap Report

#### 5.0 WAIVER AUTHORITY

The Center Director (CD) has the authority to waive any procedural step that does not represent a Headquarters, OSHA, or NTSB requirement.

Aircraft Management Division

#### 6.0 ACRONYMS & DEFINITIONS

#### 6.1 Acronyms

AIVID	All Craft Management Division
ASO	Aviation Safety Officer
CD	Center Director
GSO	Ground Safety Officer
IRIS	Incident Reporting Information System
ISC	Incident Command Structure
MARS	Mars Server: Managed Archive and Repository System
MOO	Maintenance Operations Office
NAARS	NASA Aviation Anomaly Reporting System
NTSB	National Transportation Safety Board
OSC	On-Scene Commander
OSHA	Occupational Safety & Health
OSMA	Office of Safety & Mission Assurance

SARD System Assessment and Requirements Division

SFOR Senior Flight Operations Representative

WATR Western Area Test Range

#### 6.2 Definitions

Incident A mishap or close call that is reportable in IRIS

NASA Mishap See Attachment 2 NASA Close Call See Attachment 2

#### 7.0 PROCEDURES

#### 7.1 Key Players

The procedure directs activity that is clustered primarily in four main groups: management, safety, operations, and the immediate response team. The interaction between these groups is essential and is facilitated by the checklist procedures associated with this process. Each group has assigned responsibilities and key personnel to lead those activities, as follows:

#### 7.1.1 <u>Management</u>

Management's primary responsibility is to ensure that

- Immediate needs for crash and rescue are satisfied
- Initial internal and external reporting and investigation are accomplished
- Post incident stress is addressed
- Next of kin notification is accomplished

The Center Director leads a forum consisting of leads from organizational codes that have a role in this response procedure as well as a potential capability that may be needed. To a great degree, management will be confirming actions taken by the remaining three identified groups to identify issues and conflicts, resolve confusion, and redirect activity as needed. Much of this activity is enumerated in the X-1 and X-2 checklists. The X-1 checklist is meant to bring many requirements to a point of recognition, which will not be fully addressed by the end of the meeting. It is management's responsibility to manage the interrelated aspects of these requirements while specifically caring for

the organization's needs. The X-2 is a follow-up session to assess that X-1 activities have been initiated and initiate the remaining requirements required within the first 24 hours, while beginning to identify and plan activities that will extend beyond the initial 24 hours.

#### 7.1.2 Flight Operations

Flight Operations has a vital role in not only the initial response to the incident site for local class A or B mishaps (given its unique abilities to understand the mechanical aspects of the vehicle), but also to the operational understanding of the flight environment as it pertains to the verification of incident-related data. Regardless of the category of the incident, flight ops will initiate actions to impound evidence and collect and forward incident information.

Checklists are divided to segment activity into functional roles; an O-1 checklist provides management direction for directorate reporting and aircrew evidence collection and external reporting. The O-2 checklist addresses maintenance aspects of those activities. The O-3 and O-4 checklists direct essential activity at a deployed location.

The Flight Ops Director initiates the O-1 checklist and becomes the essential link with senior management activity. The Senior Flight Operations Representative is the focal point for activity within the directorate and incident information once the initial notification has been made to the Center Director through Security. Once the Flight Ops Director has initiated the O-1 checklist, his primary task is to designate the Senior Flight Operations Representative (SFOR) in anticipation of his attendance at the CD initial meeting, collect the best information on the incident, activate the IRT's deployment mode of transportation, and transfer the O-1 checklist responsibility to the SFOR.

#### 7.1.3 Security

Post 1 is the central security desk in Bldg. 4825. It is manned 24 hours a day, 7 days a week.

Post 1 is the central receiving point for the initial notification of a mishap or close call. Though it is directed that witnesses / participants should call safety and their supervisors to report an incident's occurrence, these procedures should ultimately funnel Type A, B, or high visibility mishap notification to Post 1 regardless

of the point of entry at DFRC. Notification of lower type incidents may initially arrive at Post 1.

Post 1 will pass information to the Center Director for determination of the level of response. For category A, B, or high visibility incidents, Post 1 will initiate the J-1checklist and dispatch a security IRT responder, who will be the NASA On-scene Commander and will direct the appropriate security measures for the incident site once NASA has site responsibility (J-2 checklist).

Finally, Post 1 ensures that the initial incident data is passed to the Center Director and relays aircraft hazard information to remote crash and rescue organizations. Hazard information will be stored on the MARS server and kept in hard copy at Post 1 and in the Code O IRT response kit. It is Code O's responsibility to create and make available this information before a specific aircraft flies and will verify it as part of the project's readiness review for local or deployed missions.

#### 7.1.4 Safety & Mission Assurance

The Director of S&MA advises the Center Director as to the appropriate categorization of the incident. Regardless of the categorization, the S&MA Director initiates checklists to launch the investigation and reporting process. Safety will collect and impound all evidence, while preparing documentation to authorize the investigation authority and verify critical notification responses to external organizations. The S&MA Director will initiate the S-1 checklist and participate in the Center Director's meetings, being the principle advisor on the investigation and reporting process. He will also dispatch a trained individual to be the safety and investigation member of the IRT, who will execute the S-2 checklist. S&MA will also ensure that project contingency plans are available on the MARS server and a hard copy is available for the X-1 meeting.

#### 7.2 Initial Notification Procedure

The initial notification of an aviation-related incident may be relayed from either internal or external sources, depending upon the nature of the operation.

Operations are divided into three categories based on their base of operations. These would be local, cross-country, and deployed operations. Internal sources of notification will typically be employees involved with the operation, while external sources will typically be air

traffic control agencies (radar approach control, airport tower or ground control, etc) responsible for aircraft separation from other traffic in that environment.

Additionally, notification may likely pass through secondary agencies, such as the Edwards AFB Command Post, for operations off site.

Ultimately, notification of the incident should arrive at one of three DFRC offices: Flight / Maintenance Operations, Security Post 1, or Safety & Mission Assurance. This response will verify or ensure appropriate crash, rescue, medical, reporting, and investigative actions are completed by executing a series of checklists contained as TABs in this procedure.

The process depicted in Figure 1 indicates the possible paths of notification based on the type of operations and the duty status of DFRC operations. The procedure includes the necessary steps to direct the response activities into one of two paths based on the categorization of the type of an incident. One path engages the full response of the Center for Type A, Type B, or lower category, high visibility incidents. The second engages the essential processes within the Flight Operations Directorate and the Office of Safety & Mission Assurance to meet reporting and investigation requirements. Essentially, full Center responses will be signified by notification through Security Post 1 or the DFRC 911 notification system, while a reduced response for lesser mishaps will be initiated through the S&MA Office. The decision to elevate an incident above its nominal type categorization, and hence invoke greater reporting and investigative requirements, rests with the CD or NASA Headquarters.

#### 7.3 Information Flow

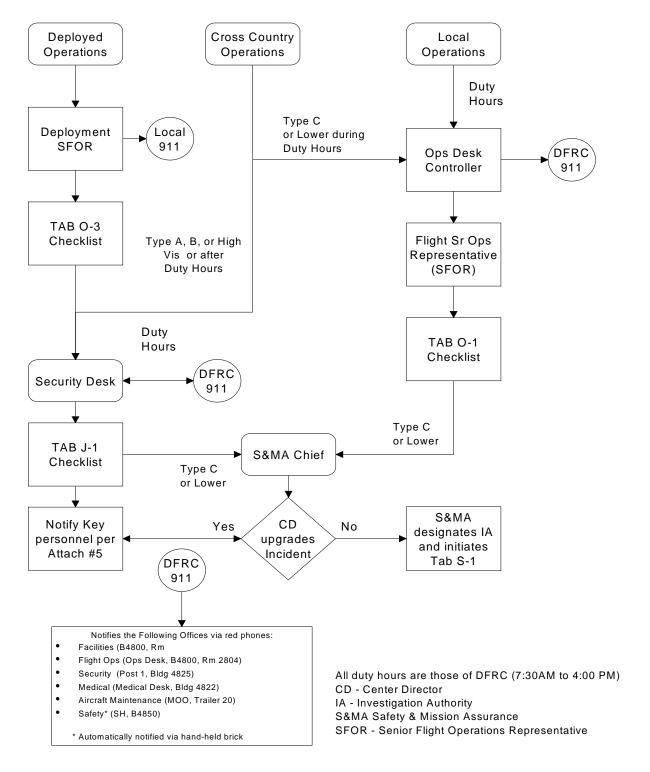


Figure 1 - Initial Notification Process

The management of information surrounding the event itself and the ensuing investigation is imperative to any mishap. Though the timely release of incident information is important, it is imperative that the information be accurate. As such, information to be sent to external organizations, such as other federal agencies or the public, must be verified and approved before release.

The general process for information to be approved by senior management before release is depicted in Figure #2 (below) and is detailed as follows. Initial incident notification will be made to Security, Post 1. The preferred mode of transmission is an initial phone call followed by a facsimile.

After initial notification, information will be funneled to the Senior Flight Operations Representative for verification and forwarding to management. Secondly, information will be recorded using the incident form in Attachment 1. The SFOR is responsible for maintaining a current version of the incident data form, maintaining a version on the MARS server, and forwarding update notifications to the Center Director.

Management approval of successive updates of the form will be used to control information. Though public releases will be generated from this approved information, the final copy will require specific approval by the Center Director. The actual approved information on Attachment 1 will be placed on the MARS server, and the appropriate personnel will be notified by email of the updated release.

Thirdly, actual transfer of information will be limited to communication means that provide appropriate security until it can be verified and released under controlled circumstances. (Names of crewmembers and medical status will not be divulged over handheld radios that can be easily monitored.) The following protocol will be used for incident information.

- A. The following will be considered sensitive and will be transmitted via the means authorized in item B below.
  - 1) Name and condition of casualties
  - 2) Sensitive codes
  - 3) Equipment and personnel deficiencies or limitations
  - Radio net frequencies and call signs
  - 5) Proposed runway closures or repairs
  - 6) Status/use of specialized equipment
  - 7) Status of base utilities or other resources
  - 8) Status of firefighting or rescue operations
  - 9) Speculation on accident cause

- 10) Capabilities/limitations of response forces or equipment
- 11) Contamination detection capabilities
- 12) AF or NASA vulnerabilities as a result of the incident
- 13) Contamination information
- 14) Specific mishap location
- B. Transmission modes will be used in the following order. The transmission mode will be dictated by the specific situation at hand to meet required reporting requirements. Hand-held radios will not be used to transmit this data unless there is no other means and it is time-critical to effective emergency response. Classified material may only be transmitted via approved secure equipment and channels.
  - 1) Encrypted file transfer
  - 2) Facsimile
  - 3) Hard copy
  - 4) Secure Voice
  - 5) Satellite Phone
  - 6) Land Phone
  - 7) VOIP phone
  - 8) Cell phone
  - 9) Encrypted Email

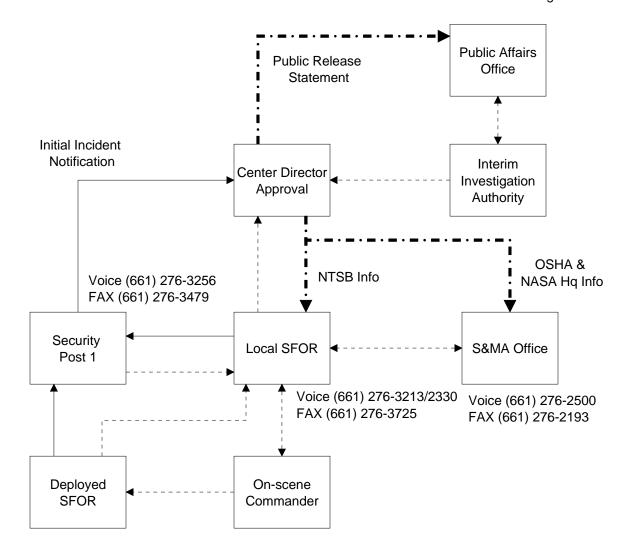


Figure 2 - Information Flow

Phone logs in Attachment 8 are provided to facilitate good communication and provide a record of significant events and decisions. All key players in the process are will establish a phone log to substantiate key events coordination and critical information transfer.

C. Immediate Response Team (IRT) – The deployment and makeup of the IRT is dependent upon several factors: type of aircraft, location of mishap site, NTSB involvement, etc. In all cases, having NASA presence on scene is essential to expeditiously and accurately meet reporting requirements, secure the site evidence, and ensure the safety of the public safety. In most cases, other local or state agencies will respond to provide crash, rescue, and security services at the site. At the point where their responsibilities have been addressed, those organizations will be ready to transfer responsibility for security and

final site disposition to NASA. Until that time, the IRT will support the designated OSC, submitting to his authority. With the NTSB's deferral of investigation authority to NASA, the list of potential membership, roles, responsibilities, and their respective checklist is listed below. Once the NASA interim or permanent investigation authority is established, they have lead responsibility for the responsibilities entrusted to the IRT. As a result, all IRT members will fall under the command of the IA until they are relieved by the IA, which may occur individually. The IRT OSC will retain local command of the mishap site until relieved by the IA. If NTSB retains investigation authority, the NASA IRT will not deploy to the site unless requested by the NTSB. If they are already on site, they have no authority, but will protect the public by establishing a safety zone around the vehicle in the absence of any crash, rescue or/and security responses.

It is up to the agency that has jurisdictional control of the accident site to establish an ICS structure, if necessary. This will be based on the location and magnitude of the incident. If an ICS structure is established, the CD will decide if establishing an EOC at DFRC is appropriate given the circumstances.

Transportation to the incident site will be based on the specific location and severity of the incident. For initial planning purposes, IRT deployment to locations within one-hour driving time will be by ground vehicles. Locations within the local region of DFRC, but outside the one-hour zone, may employ local flight options. Code O has a responsibility for prearranging specific flight options with DFRC assets or other local organizations to facilitate IRT deployment based on site availability and speed of response. To facilitate a quick response under dire circumstances, the Code O Director has the authority to activate a specific option that he feels meets the needs of the situation. Outside the local region, commercial air is the probable mode.

Member	Responsibilities	Checklist
On-Scene Commander* (Code J)	<ol> <li>Team direction to establish site security, preserve/collect investigation evidence, and protect the public and team</li> <li>Report critical information to Senior Flight Operations Representative</li> <li>Secure crash site and control access</li> </ol>	J-2
Operations Representative * (Code O)	Assist in providing capabilities to safe, protect, and move the mishap assets	None
Life Support Specialist (Code O)	Assist in safeing pyrotechnic devices	None
Medical (Code XM)*	Provide emergency medical treatment in lieu of local capability     Collect and forward critical medical information	M-2
Safety* (Code S)	Assist in identifying potential hazardous conditions and materials and recommending appropriate safety actions and PPE for the IRT members     Assist the OSC in preserving and collecting site evidence	S-2
Photographer* (Code XM)  * Pacammandad minimum m	Provide photographic documentation of the mishap site, aircraft, and damage	None

<sup>\*</sup> Recommended minimum membership, though it is the OSC's prerogative to decide what critical functions are necessary and whether further delay is beneficial.

#### 8.0 MANAGEMENT RECORDS & RECORDS RETENTION

Checklists generated from actual incidents or exercises will be archived to document compliance with NPR 8621.1 requirements and <a href="DCP-F-603">DCP-F-603</a>, Records Management.

### **Tab X-1 – Initial Meeting Checklist – Center Director**

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Step #	Action	Accomplished (Initial Block)	Time / Date
	conduct initial Meeting: Once notified of the will determine whether this meeting is necessary, who notification of attendees by Security, Post 1. Attended to the specified location. If during duty hours, the free public address announcement to expedite the notificand Code Bravo personnel report to the Executive Cotwice. If after duty hours, this meeting may occur violate. If after duty hours, this meeting may occur violate. If after duty hours, this meeting may occur violate. If after duty hours, this meeting is intended information, verify crash and rescue is dispatched, on notifications, and begin preparations to inform and in IRT actions and preliminary investigation initiation so this checklist, but will be confirmed by recording assoconfirming accomplishment of certain steps typically through their respective Code Manager.	e incident from se here it will occur, lees should imme ont office may ele cation, i.e., "Will o Conference Room a a teleconference om either the XO I to capture the in direct the initial re mange the Center hould occur inder signed personnel.	and direct ediately report ect to make a Code Alpha n", repeated ce connection. N, XM, or XP initial incident equired r's response. coendent of Information
Code	through their respective Code Manager.	Attendee	e Name
Alpha	Center Director		
Alpha	Deputy Center Director		
Alpha	Associate Director for Operations		
Alpha	Associate Director for Projects		
Alpha	Associate Director for Management		
Bravo	Chief Engineer		
Alpha	Director for Flight Operations		
Alpha	Chief of Safety & Mission Assurance		
Bravo	Chief of Public Affairs		
Bravo	Senior Project Representative		
Bravo	Chief Counsel		
Bravo	Employee Assistance Officer		
Bravo	Chief of Security		
Bravo	Chief Medical Officer		
1	Ensure adequate crash and rescue response. Responding Agency Time Dispatched		/
2	Review / obtain mishap information recorded on Incident Information Form, Attachment 1, from Security.		/

Step #	Action	Accomplished (Initial Block)	Time / Date
3	Make preliminary incident type classification in accordance with NPR 8621.1 criteria in Attachment 2.  If Type A, contact Administrator within 1 hour to ascertain Appointing Authority determination. (202) 358-1010.		/
5	Verify NASA IRT is dispatched: On-Scene Commander (Security): Ops: Photographer: Life Support: Safety: Medical:		/
6	Notify external agencies (duty / after hours). Status completion as required	closure and/or d	irect
6A	Headquarters: Within 1 hour of incident for Type A or B mishap or high visibility incident. Reference Attachment 2 for mishap type definitions.  OSMA/SARD: (202) 358-0006 / (866) 320-6272 Code S, TAB S-1, Step 7		/
6D	If criminal activity suspected:  Office of Inspector General: Contact  General or Center Chief Counsel (3997) Contact		/
7	Approve and issue a PAO news release to include hazard information. Release should be shared with DFRC employees. Code T, TAB T, Step 2		/

Step #	Action	Accomplished (Initial Block)	Time / Date
8	Verify Attachment 5 notifications are complete. Tab J-1, Step 2. Security:		/
9	PAO broadcast public emails and public addresses to make employees aware not to share any information outside DFRC channels.  Message approved by CD. Reference Attachment 12 for initial template.		/
10	Assess the requirement to drug test those individuals with possible culpability in a mishap involving a fatality, injury requiring immediate hospitalization, or damages in excess of \$10,000.  Verify contact NSSC to start process. Tab M, Step 9.  • Identify individuals (Checklist O-1, step 9)  • Contact contractors for authorization via Code L  • Issue authorization letters. Ref Attachment 9 (may require contractor authorization).		/
12	Initiate next-of-kin notification (Tab H, Step 1).  Identify decease/injured personnel  Obtain next-of-kin data  Select notification officers (trained)  Select method and schedule		/
13	Develop current version of incident data form (Attachment 1) and distribute to staff.		/
14	Set time and place for "One Hour" meeting (TAB X-2) and notify attendees.		/
15	Notify the S&MA office (x2500) of the completion of this checklist. Send or drop off completed checklist to MS 2128. Copies may be retained.		/

### **Tab X-2 – One-Hour Meeting Checklist – Center Director**

Step	Action	Accomplished	Time /
#		(Initial Block)	Date
Code	at the Initial Meeting or by either a phone call or public address. If after duty hours, this meeting may be via teleconference. <i>Mishap information should not be sent via email as this may release information into the public domain.</i> Members for this meeting are those for the initial meeting (Code Bravo + Code Alpha personnel) under TAB X-1 and the additional personnel listed here (Code Charlie personnel).		
Charlie Charlie Charlie Charlie Charlie Charlie	Office of Acquisition Management Chief Financial Officer Director of Test Systems Director for Engineering Chief Information Officer Chief of Human Resource Management		1
1	Update / approve incident information using Attachment 1.		/
2	Verify status of accident site safety and emergency response and rescue.		/
3	Verify closure of items from "Initial Meeting".		/
4	Verify notification of regional NTSB Office ASAP: SW (310) 380-5660 Code O, TAB O-1, Step 14 NTSB Contact: Investigation Responsibility: NASA or NTSB (circle one)		/
5	Verify coordination by S&MA of Type A, B, or high visibility incident classification with Headquarters Chief / OSMA		/
6	Verify collection of evidence  Aircrew Records, SFOR O-1 Checklist, Step 12		/

Step #	Action	Accomplished (Initial Block)	Time / Date
	☐ Maintenance Records, SFOR O-2 Checklist, Step 3		
	Ops Engineering Records, SFOR O-1 Checklist, Step 12		
	☐ WATR Records, SFOR Checklist O-1, Step 12		
	☐ Project Records, J-1 Checklist, Step 9		
	☐ Medical Records, M-1 Checklist, Step 11		
7	Plan and execute an "All Hands" meeting to disseminate information to employees		1
8	Assess need for potential post-incident stress syndrome in organization (Solicit EAP recommendation)		/
9	Verify notification of NASA Headquarters AMD Code O, TAB O-1, Step 14		/
10	Establish / identify the charge codes from the responsible organization (Center-related incident) or project (project / program-related incident) to charge investigation labor and related activity.  Labor RAD:  Procurement:		/
11	CD personally notified Administrator by email or phone within 24 hours of Type A or B mishap or Type C (if lost time injury or illness) (202) 358-1010. (Already completed for Type A as a result of Step 3 above)		/
12	Continue next-of-kin notification (Tab H, Step 1)		/

Step #	Action	Accomplished (Initial Block)	Time / Date
	<ul> <li>Identify decease /injured personnel</li> <li>Obtain next-of-kin data</li> <li>Select notification officers (trained)</li> <li>Select method and schedule</li> </ul>		
13	Assess need for potential post-incident stress syndrome in organization (Solicit EAP recommendation)		/
14	Reschedule meetings as necessary to bring closure to the IRT and immediate reporting activities.		/
15	Periodically update and release public statements of incident facts. Convey internally to employees.		/
16	Appoint permanent mishap Investigation Authority. May require coordination with Headquarters based on mishap type. Reference Attachment 3.		/
17	Verify notification of OSHA (within 8 hours): (800) 321-6742; Code S, TAB S-1, Step 8 Contact		/
18	Notify the S&MA office (x2500) of the completion of this checklist. Send / drop off completed checklist to MS 2128. Copies may be retained.		/

### Tab H - Action Plan - Human Resources Office

Ensure notification of next-of-kin occurs following a mishap. Next-of-kin of DFRC aircrew members will be notified by the DFRC Center Director, the DFRC Flight Operations Director, or the Center Director's designee.

Step #	Action	Accomplished (Initial Block)	Time / Date
1	Ensure notification of the next-of-kin of other NASA employees in the event they are involved in the mishap. Ensure the Center Director is advised of the required next-of-kin notification and any desires for personal involvement are accommodated.		/
2	Ensure that the PAO is informed when the next-of-kin have been notified to facilitate release of pertinent information to the news media.		/

## Tab J-1 - Checklist - Security Post 1

Step #	Action	Accomplished (Initial the Block)	Time / Date
1	Receive / complete initial Aircraft Mishap Information using Attachment 1. Pass to CD for X-1 meeting.		/
2	If incident is a class A, B, or high visibility incident, notify key personnel as indicated in Attachment 5. (If in doubt about the class of the incident or after duty hours, assume this categorization and notify key personnel).		/
3	If mishap is of less severity than that indicated in Step 2, notify Chief S&MA. S&MA Chief will coordinate with the Center Director to determine the incidents categorization.		/
4	Contact crash and rescue organization if incident is off Edwards AFB property and this is not a deployment. Transmit aircraft hazard data sheet.  Contact: Phone: Notify SFOR of completion.		/
5	Disseminate subsequent information to the Senior Flight Operations Representative. Voice: (661) 276-3213/2330 FAX: (661) 276-3725		/
6	If after duty hours, notify Chief of Security or designee, Code J staff, and WSI Site Manager.		/

Step #	Action	Accomplished (Initial the Block)	Time / Date
7	Identify and assist Code J On-Scene Commander as required.  OSC:		/
8	Collect and impound any security monitor video or reports pertinent to the incident. Call Code O SFOR for coordination of potential areas of interest and S&MA (x2500) for pickup.		/
9	For type A or B mishap or high visibility event, quarantine Project Offices and materials identified by the Projects Directorate (x3178 – duty hours/Code P lead after hours). Pass quarantine locations of offices to S&MA (x2500).		/
10	Notify the S&MA office (x2500) of the completion of this checklist. Send or drop off completed checklist to MS 2128. Copies may be retained.		/

### Tab J-2 - Action Checklist - On-Scene Commander

Step #	Action	Accomplished (Initial the Block)	Time / Date
1	Obtain initial aircraft incident Information (Attachment 1) from Post 1.		/
2	Marshal to building 4805 to rendezvous with other IRT members. Reference Attachment 11.  Ops Photog Medical Safety Life Support Safety _		/
3	Contact SFOR to ascertain transportation mode to crash site. (276-3213/2330)  Leave list of members with SFOR. Notify SFOR of arrival at mishap site.		/
4	Coordinate activities with other responding agencies. When appropriate, take charge of the mishap site until relieved by the NASA Investigation Authority or the Incident Commander of an ICS structure. Restrict access to the site.		/
5	As soon as possible, ensure proper photographic documentation of entire mishap site is accomplished. This will be accomplished by Photo Lab personnel. Coordinate overhead photo of incident site.		/
6	Establish site boundaries, access points, and access control procedures		/

Step #	Action	Accomplished (Initial the Block)	Time / Date
7	Verify members have appropriate PPE for the site. Ensure personnel are properly trained and briefed as to specific hazards to be aware of with specific aircraft involved. Review vehicle MSDS sheet. Include mishap site protocol. Take steps necessary to prevent further injury and property damage.		/
8	Establish communications with SFOR at Flight Operations POC: Tel #/Freq		/
8	Facilitate drug testing. Identify individuals onsite who satisfy criteria to be tested*. Pass names to SFOR. Obtain testing agent from medical coordinator at DFRC (661) 276-3750. Authorized participants will be escorted to testing location.  NSSC Testing Agent:  Location: Phone #		/
9	Locate and identify potential witnesses to mishap. Develop list of names, addresses, and phone numbers of all witnesses and persons who know witnesses. Record data on form in Attachment 13. Request statements from witnesses. NASA privilege is not to be extended.		/
10	Establish Staging Area		/

Step #	Action	Accomplished (Initial the Block)	Time / Date
11	Identify, mark, photograph, and preserve perishable evidence. Complete log for each item.		/
12	For personal items of crew or injured bystanders, establish a separate log and a secure chain of custody involving two persons. These items must be physically secured.		/
13	Pass updates of incident information on Attachment 1 to the SFOR as information changes.		/
14	Continue until relieved by the Investigation Authority (IA). The IA may have you remain to ensure site security and facilitate the investigation.		/
15	Notify the S&MA office (x2500) of the completion of this checklist. Send or drop off completed checklist to MS 2128. Copies may be retained.		/

<sup>\*</sup> Drug testing will be initiated on those maintenance individuals with possible culpability in a mishap involving a fatality, injury requiring immediate hospitalization, or damages in excess of \$10,000.

### **Tab M – Action Checklist – Medical Action Plan**

Step #	Action	Accomplished (Initial the Block)	Time / Date
1	DCP-S-001: Obtain and open DCP-S-001 (part of the Health Unit Aircraft Incident Response Plan binder).		/
2	<b>911</b> : Activate Edwards Air Force Base EMS through 911, if not already accomplished.		/
3	IMMEDIATE RESPONSE TEAM (IRT): One Registered Nurse (RN) gets blue Mishap Response backpack and meets other IRT Team members at marshaling site to deploy to crash scene.  IRT RN:  Once there, the RN will:		/
	Establish face-to-face communication with Air Force Medical Responders		1
	<ol> <li>Establish communication with DFRC Health Unit by cell phone and radio (911 net)</li> </ol>		/
	<ul> <li>3) As information is available, obtain and report to NASA On-Scene Commander (OSC) and to Health Unit:</li> <li>a) Number of victims</li> <li>b) Status (Uninjured, Injured, Deceased)</li> <li>c) Identities (No NAMES over the radio)</li> <li>d) Destination of transport (e.g., AV Hospital, Lancaster Community Hospital, etc.)</li> </ul>		/
4	CENTER DIRECTOR MEETING: The Senior Medical Representative on-site will go to the Executive Conference Room to communicate information, as available, to the Senior Staff. Med Rep:		/

Step #	Action	Accomplished (Initial the Block)	Time / Date
5	HEALTH UNIT COMMUNICATION:  1) Call Air Force Flight Surgeons' Office (FSO) to <i>verify</i> medical response: (661) 277-1130		/
	2) Within one (1) hour, call NASA HQ Chief Health & Medical Officer: a) (202) 358-2390 b) (202) 358-1794		/
	<ul> <li>3) Relay ALL incoming information to:</li> <li>a) Senior Medical Representative (cell/radio)</li> <li>b) Senior Flight Ops Representative:</li> <li>Phone: (661) 276-3213 or 2330</li> <li>FAX: (661) 276-3725</li> </ul>		/
6	<ul> <li>If <i>UNINJURED</i>, transport to Health Unit for:</li> <li>1) Complete history &amp; physical exam</li> <li>2) Draw blood for Random Blood Sugar, CBC, and Carboxy-hemoglobin level</li> </ul>		/
	Urine: Collect and send for laboratory urinalysis		/
	4) X-Rays: Complete spinal X-rays (at minimum) taken on any individual involved in ejection, parachute landing, crash landing, or ditching		/

Step #	Action	Accomplished (Initial the Block)	Time / Date
7	If <b>INJURIES</b> (and not already performed by Air Force medics):		
	Establish Casualty Collection Point (CCP)		1
	Establish triage area near Entry Control     Point (ECP)		/
	3) Triage casualties BLACK = DEAD or EXPECTED to Die RED = IMMEDIATE transport needed YELLOW = DELAYED transport needed GREEN = MINIMAL injury, but stable		/
	Render initial medical care as appropriate (Airway, Breathing, Circulation)		/
	<ul> <li>5) Transport to higher echelons of care. Ambulance driver notify NASA IRT medical representative: <ul> <li>a) Number of victims</li> <li>b) Status (Uninjured, Injured, Deceased)</li> <li>c) Identities (No NAMES over the radio)</li> <li>d) Destination of transport (e.g., AV Hospital, Lancaster Community Hospital, etc.)</li> </ul> </li> </ul>		/
8	1) If FATALITIES:		
	<ul><li>2) Report names to:</li><li>a) Senior Medical Representative</li><li>b) Senior Flight Ops Representative</li></ul>		/
	Notify Edwards Air Force Base Mortuary Affairs (through EAFB Command Post)		/
	4) Notify Coroner of fatality (see phone list)		/

Step #	Action	Accomplished (Initial the Block)	Time / Date
9	<b>DRUG-TESTING:</b> Call NASA Shared Services Center (NSSC) to arrange urine drug-testing of personnel designated by Center Director's letter: 877-NSSC123		/
	Inform NSSC to have specimen collector call Health Unit with identifying information for base access:     a) Name (First, Last, MI)     b) Place and Date of Birth     c) Social Security Number     d) Driver's License Number and State of Issue		/
	2) Fill in information on DFRC 735-1, Visit Request, and send to Security for emergency processing. If necessary, expedite by calling Security 1 on 911 net and request a call back on a normal phone. Request priority processing through Code J Chief and/or Deputy Chief.		/
	3) NOTE: While individuals are awaiting drug testing, have them complete a Witness Statement. (Use form from Attachment 7.)		
10	MEDICAL RECORDS: Collect medical records of all individuals drug-tested and/or directly involved in the mishap (e.g.,		/
	crewmembers, maintenance personnel, etc,)		/
	1) Lock them in file cabinet.		/
	Turn them over to the (interim) Medical Investigation Officer.		
	3) Notify Safety & Mission Assurance Chief of secured medical records: (661) 276-2500		

Step #	Action	Accomplished (Initial the Block)	Time / Date
11	TERMINATION: Response checklist terminated when all victims accounted for		
	Report number, names, and conditions of ALL casualties to Senior Flight Ops Rep.		/
	2) Notify Safety & Mission Assurance Chief of checklist completion: (661) 276-2500		/
	3) Send or drop off completed checklist to MS 2128		/
	Turn over control of scene to (interim)     Medical Investigation Officer		/
12	Notify the S&MA office (x2500) of the completion of this checklist. Send or drop off completed checklist to MS 2128. Copies may be retained.		/

# **Tab O-1 – Action Checklist – Flight Operations Directorate**

Step #	Action	Accomplished (Initial the Block)	Time / Date	
	The local Senior Flight Operations Representative (SFOR) will ensure completion of this checklist. If Ops desk personnel receive the incident call, they should make the DFRC internal 911 call to notify Security, Facilities, MOO, Safety (Code SH) when appropriate, and initiate this checklist. It is imperative that Crash & Rescue is notified and the internal notification process is initiated by notifying security or S&MA, as appropriate.			
1	Record incident data on Attachment 1 as much as possible with reporting individual.  Reporting POC: Contact #:		/	
2	Dispatch Crash & Rescue (C&R) if not initiated already C&R org: Contact Name: Phone #:		/	
3	Notify Security Post 1 for known or suspected Category A or B mishap or high visibility incident (661) 276-3256 or 911, as appropriate. Fax current Attachment 1 to: 276-3479.  Or  For lower category incidents, call S&MA Director at (661) 276-2500.  Security Contact:		/	
4	Designate Senior Flight Ops Representative (SFOR) at x3213/2330  SFOR:		/	

Step #	Action	Accomplished (Initial the Block)	Time / Date
5	If local mishap, dispatch Immediate Response Team (IRT) Operations Rep with quick response kit (located in Life Support). Trailer and tow vehicle keys located in MOO. Ops rep will marshal at Bldg 4805. Reference Attachment 11.  Ops Reps:		/
6	Notify Chief of Aircraft Maintenance to initiate Checklist at Tab O-2.  CoM:		1
7	Notify key Code O personnel listed on Code O key personnel roster located in Code O Directorate Office.		/
8	Prepare list of drug testing subjects and pass to ongoing/next CD meeting.* Verify drug testing initiated on designated individuals. If incident is at a deployed site. Deployed SFOR should provide names.		/
9	If a deployment incident, contact the deployed SFOR and ensure checklists at Tab O-3/4 are accomplished.		/
10	Flight Ops Director attend initial CD meeting per Tab X-1.		/

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Step #	Action	Accomplished (Initial the Block)	Time / Date
11	Direct impound all aircrew and maintenance records, including automated data and hangar areas used for day of activity. Code SQ will collect all evidence, verify systems are secured, and establish chain of custody.  Aircrew Impound agent:  Maintenance Impound agent:  Ensure those impounding evidence are properly equipped for the hazards that may have resulted from the mishap or may be encountered in collecting evidence. All impound collection agents must be a government civil servant. (Reference Attachment 4 for specific evidence)		/
12	Direct impound of WATR data, as applicable. This could be target of opportunity data. Call 276-3390 (Range Scheduling). They will direct execution of DOP M-101.  Range Contact:		/
13	Flight Ops Director attends One-Hour Meeting with CD per Tab X-2		/
14	Notify NTSB per Attachment 6 after CD releases info for message content. Pass notification date, time, office, and phone # to S&MA (x2500) for HQ S&MA 24-hour report.  If NTSB was notified, inform HQ AMD of the		/
	NTSB notification. AMD: (202) 358-2219; -4637; -2981 Contact: Phone:#		/

Step #	Action	Accomplished (Initial the Block)	Time / Date
15	Direct ASO/GSO to enter incident into IRIS or NAARS as applicable. Notify DFRC OSMA of completed entry (276-2500).		/
16	Ensure communications with crash site are established and required emergency measures are implemented. Issue radios and cell phones as needed. Provide updated information to:  • Director 3101  • SMA Office 2500  • Security 3256		/
17	Provide personnel, supplies, transportation, and communications to sustain presence at mishap site for duration.		/
18	Collect and pass updated information to Center Director via Attachment 1, as required.		/
19	Notify the S&MA office (x2500) of the completion of this checklist. Send or drop off completed checklist to MS 2128. Copies may be retained.		/

<sup>\*</sup> These are individuals who have direct contact with the aircraft that day with possible culpability, if the mishap involves a fatality, injury requiring immediate hospitalization, or damages in excess of \$10,000 is complete. This includes aircrew and maintenance (provided by CoM) personnel.

## Tab O-2 - Action Checklist - Chief of Aircraft Maintenance

Step #	Action	Accomplished (Initial the Block)	Time/Date
1	Determine actions necessary to support IRT at mishap location.		/
2	Ensure necessary equipment and personnel readiness.		/
3	Assist Code SQ in collecting and securing all aircraft and engine records for involved aircraft. Include all applicable servicing documents, forms, and equipment. Collection must be performed and witnessed by a civil servant. Pass to SQ Representative. See Attachment 4 for detailed list of evidence.  SQ rep:		/
4	Issue cell phones and hand held radios, identify comm frequencies. Dispatch communications van when necessary.		/
5	Maintain supplies as needed to support IRT.		/
6	Coordinate availability of sufficient directorate personnel to maintain operations at mishap site. Coordinate with SFOR.		/
7	Maintain communications with On-Scene Commander and SFOR. Voice: (661) 276-3213/2330 FAX: (661) 276-3725		/

Step #	Action	Accomplished (Initial the Block)	Time/Date
8	Develop list of maintenance personnel who should be drug tested and pass to SFOR*. Designated individuals will be notified to remain at work until they are released by NASA senior management.		/
10	Pass updated information as required about the mishap to SFOR at (661) 276-3213/2330.		/
11	Notify the SFOR of checklist completion		/
12	Notify the S&MA office (x2500) of the completion of this checklist. Send or drop off completed checklist to MS 2128. Copies may be retained.		/

<sup>\*</sup> Drug testing will be initiated on those maintenance individuals with possible culpability in a mishap involving a fatality, injury requiring immediate hospitalization, or damages in excess of \$10,000. Typically, this is anyone who has come in contact with the aircraft/vehicle for specific duties the day of the flight or incident. This represents an understanding of potential, not actual, culpability. It must be stressed that this information must be taken immediately to avoid loss of potential data if collection is delayed until a point where culpability is actually determined. Letters will be signed by the CD directing individual testing. Contractor personnel will be approved through their respective company site manager.

## Tab O-3 – Action Checklist – Deployed Senior Flight Ops Representative (SFOR)

#### **Deployed Operations Procedures**

The **Deployment Senior Flight Operations Representative** will ensure that the following tasks are accomplished during deployment mishap. A deployment is any remote flight operation supported by a DFRC ground -based organization directed by a Site Manager not part of the Aircrew. This checklist will probably precede the activation of the O-1 and O-2 checklists.

Step #	Action	Accomplished (Initial the Block)	Date/Time
1	Ensure appropriate crash, rescue, and medical resources are notified.  C&R Agency:  C&R Contact:  Contact #: ( )		/
2	Record incident data on Attachment 1.		/
3	Notify DFRC Security Post 1 (661) 276-3256. Fax Attachment 1 to Security post 1 (661) 276-3479		/
4	Direct Site Manager to complete checklist at Tab O-4.		/
5	Maintain radio contact with other aircraft, mobile ground units, etc. Serve as information relay as long as needed.		/
6	Refer to Project / Program Contingency Plan and Pre-Mishap Contingency plan for other required actions.		/

Step #	Action	Accomplished by (Initial the Block)	Date/Time
7	Develop list of maintenance and aircrew individuals for drug testing and forward to DFRC Senior Flight Operations Representative (SFOR)*  Voice: (661) 276-3213/2330 FAX: (661) 276-3725		/
7	Verify impound of local work site and collection of evidence indicated in Attachment 4 that is available at the deployed site location.		/
8	Provide status reports to SFOR at Flight Operations Directorate as soon as local conditions permit. Record on Attachment 1 and fax. Provide hourly updates.		/
9	Once authorized, verify completion of drug testing of designated individuals on-site. The NSSC will coordinate testing. Obtain NSSC testing agent from medical coordinator at DFRC (661) 276-3750.  NSSC Agent:		/
10	Notify the DFRC local SFOR of your checklist completion		/
11	Notify the S&MA office (x2500) of the completion of this checklist. Send or drop off completed checklist to MS 2128 (FAX: x2193). Copies may be retained.		/

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\* Drug testing will be initiated on those maintenance individuals with possible culpability in a mishap involving a fatality, injury requiring immediate hospitalization, or damages in excess of \$10,000. Typically, this is anyone who has come in contact with the aircraft/vehicle for specific duties the day of the flight or incident. This represents an understanding of potential, not actual, culpability. It must be stressed that this information must be taken immediately to avoid loss of potential data if collection is delayed until a point where culpability is actually determined. Letters will be signed by the CD directing individual testing. Contractor personnel will be approved through their respective company site manager.

# **Tab O-4 – Action Checklist – Deployed Site Manager**

#### **Deployment Site Manager** will comply with the following:

Step #	Action	Accomplished by	Date/Time
1	Provide for security of relevant property.		/
2	Impound local work site and collect evidence as indicated in Attachment 4.		/
3	Assist in collection of written eyewitness statements, as applicable.		1
4	Refer to Project / Program Contingency Plan for other required actions.		/
5	Notify the S&MA office (x2500) of the completion of this checklist. Send or drop off completed checklist to MS 2128. FAX: (661) 276-2193.		/

## **Tab S-1 – Action Checklist – S&MA Director**

Step #	Action	Accomplished (Initial the Block)	Time / Date
1	Resolve incident type categorization with Center Director. Verify current version of DCP S-001.  Preliminary Type		/
2	Identify / dispatch trained Interim Investigator (II) to marshalling point, Bldg 4836 / crash site to execute checklist S-2.		/
3	Assign Investigation Process Lead (IPL) and initiate Code S Investigation Initiation Checklist.  IPL		/
4	Dispatch SQ person to quarantine maintenance records and bring relocatable records to OSMA.  SQ POC		/
5	Print current Program / Project Mishap Preparedness and Contingency Plan and pass to representative at CD initial meeting.		/
6	S&MA Chief attends Center Director's Initial Meeting.		/
7	Notify Headquarters within 1 hour of incident for Type A or B mishap or high visibility incident. Material will be approved by the Center Director. Reference Attachment 2 for mishap definitions.  OSMA/SARD (202) 358-0006 / (866) 230-6272 Contact		/

Step #	Action	Accomplished (Initial the Block)	Time / Date
8	Assign SH person to contact OSHA, as appropriate, (within 8 hours) (800) 321-6742. Ensure content is approved by CD. SH POCOSHA Contact		/
9	Prepare Permanent Investigation Authority Appointment Letter for CD approval. Reference Attachment 3.		/
10	If a Type A or B mishap or high visibility incident, prepare and send an electronic message containing information detailed in Attachment 10 within 24 hours to OSMA/SARD.		/
11	Verify IRIS entry has been made within 24 hours of incident. Information is the same as that in Attachment 10. Action completed in Tab O-1, Step 15.		/
12	Verify the following external notifications were accomplished by recalling agencies.   OSMA/SARD: (202) 358-0006 / (866) 320- 6272  NTSB, Attachment 6  OSHA, Step 8 above		/

Step #	Action	Accomplished (Initial the Block)	Time / Date
13	Verify IPL has received or quarantined all evidence:  Aircrew Records, SFOR O-1, Step 12  Maintenance Records, Chief AMD, O-2,		/
	Step 3  Ops Engineering Records, SFOR O-1,		
	Step12  WATR Records/Control Room Data,		
	DOP M-101, via SFOR O-1, Step 12  Project Records J-1, Step 9		
	☐ Medical Records M-1, Step 11 (These records will remain in the medical clinic)		
	☐ Witness Statements, O-1, Step 12; S-2, Step 7		

# **Tab S-2 – Action Checklist – On-Scene Investigator**

Step #	Action	Accomplished (Initial the Block)	Time / Date
1	Pickup equipment at Bldg 4800, Rm 21.		/
2	Report to IRT marshalling site, Bldg 4805, Attachment 11. Notify OSC of presence. On-scene Commander Notification		/
3	Ensure site is secure and brief individuals with on-site access to not disturb wreckage or possible evidence.		/
4	Review hazard sheet. Don appropriate PPE before accessing site.		/
5	Capture photographs / video of perishable evidence.		/
6	Generate list of witnesses, including anyone who may have recorded images of the incident. (Attachment 7)		/
7	Take crew and witness statements. Use standard statement forms for NASA employees including contractors. Non-NASA bystanders are not extended privilege.		/
8	Ensure appropriate level of evidence preservation via photographic record is accomplished by Photo personnel. Identify, mark, catalogue, and bag to preserve, if appropriate.		/

Step #	Action	Accomplished (Initial the Block)	Time / Date
9	Drop off witness statements and other evidence at S&MA Office, Bldg 4800, Rm 2128.		/
10	Ensure drug-testing subjects at crash site are escorted to drug testing location. Verify authorization letters are signed.		/

## Tab T - Checklist - Public Affairs Office

Step #	Action	Accomplished (Initial the Block)	Time / Date
1	Attend CD Initial Meeting: Upon notification by the front office, the Director of Public Affairs or his designee should immediately report to the front office for the initial mishap meeting. Notification may come by phone or a page as specified in the preamble to Tab X-1.		/
2	Prepare initial news release per established contingency release format as appropriate. Obtain Center Director's concurrence on content. Names of any persons killed or seriously injured must be withheld until next of kin have been notified. Concurrence from:		/
3	Send a public affairs representative to the mishap scene to handle release of information and liaison with news media or members of the public on-site and to relay pertinent information to the Public Affairs Office. This representative reports to the NASA Flight Operations onscene commander.		/
4	Upon receiving assurance that NASA Headquarters has been notified of incident for Type A or B mishap or high visibility incident, notify NASA HQ public affairs of incident and coordinate release of further information with that office. (Reference Tab X-1, item 6A) Assurance received from:		/

Step #	Action	Accomplished (Initial the Block)	Time / Date
5	Attend CD One-Hour meeting: Upon notification at the initial meeting or via phone or page, the Director of Public Affairs or his designee will report to the Executive Conference Room or the designated location. Refer to Tab X-2.		/
6	Provide public information assistance as required to the IRT or interim investigation board appointed by Center Director.		/
7	Upon receiving assurance from Center Director's office that next-of-kin of all aircrew or other directly affected personnel have been notified, prepare and issue follow-up news release with additional information as appropriate. (Reference Tab X-1, Step 20) Next-of-kin have been notified per:		/
8	Notify the S&MA office (x2500) of the completion of this checklist. Send or drop off completed checklist to MS 2128.		/

## **Attachment 1 – Incident Information Form**

Obtai	n as much of the following info	ormation as	possible.			
1	Person (s) reporting mishap		Pho	one #:		
2	Time/Date of notification					
3	Time of mishap					
4	Aircraft involved/Tail number (if kno	own)				
5	Location of mishap					
6	Crash & Rescue Dispatched? Organiz	ation:		Phor	ne #	
7	Has medical aid been summoned? WI	ho	Yes	_ No	_ N/R	
8	Condition of personnel involved/parach	nutes sighted				
9	Has AFFTC command post been notifi	ed?				
10	Description of accident					
10	Damage to aircraft					
11	Property damage/injury to public					_
12	Who else has been notified?					
13	Caller's address and present location					
14	Known witnesses	Name	Telephone			Location

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15 Weather at the scene		
16 Is a suitable helicopter landing site	nearby? Nearest airfield	
17 Have the following been notified?_	State/Local police	
County Coroner:	Fire Department:	
Will the caller remain at present location or at a	nother location to direct rescue and fire equipment?	
Specify location		
	until military or civilian authorities arrive. DANGERS OF EJECTION SEAT, CANOPY OXIC MATERIALS.	
however, all specific releases, Publ	k indicates that the information is releasable; ic Affairs, Headquarters, S&MA, NTSB, OSHA, etc. om the Center Director before actual transmission.	.,
Approved for Release: Name:	Center Director	
_	Signature	

### Attachment 2 – Mishap / Close Call Definition & Classification

The following is excerpted from NPR 8621.1 and has the original paragraph references:

#### 1.2 Description of NASA Mishaps and Close Calls

- 1.2.1 NASA Mishap. An unplanned event that results in at least one of the following:
- 1.2.1.1 Injury to non-NASA personnel, caused by NASA operations.
- 1.2.1.2 Damage to public or private property (including foreign property), caused by NASA operations or NASA-funded development or research projects.
- 1.2.1.3 Occupational injury or occupational illness to NASA personnel.
- 1.2.1.4 NASA mission failure before the scheduled completion of the planned primary mission.
- 1.2.1.5 Destruction of, or damage to, NASA property.
- 1.2.2 The following are **not** considered NASA mishaps.
- 1.2.2.1 A malfunction or failure of component parts that are normally subject to fair wear and tear and have a fixed useful life that is less than the fixed useful life of the complete system or unit of equipment, provided that all of the following are true:
- a. There was adequate preventative maintenance.
- b. The malfunction or failure was the only damage, and the sole action is to replace or repair that component. (This exception does not apply to a malfunction or failure of a component part that results in damage to another component or the facility or injury to personnel.)
- 1.2.2.2 A test failure involving damage to equipment or property as a result of testing, provided that **all** of the following are true:
- a. The test article is not flight hardware.
- b. The testing is part of an authorized research/development/qualification/certification program.
- c. Damage is limited to the test article and test instrumentation.

- d. Risk of damage to the test article and test instrumentation resulting from failure was accepted explicitly (i.e., documented) by program/project management and concurred on by the Center safety office.
- e. The test team performs a test failure analysis and generates a technical report instead of treating it as a mishap and completing a mishap report.
- 1.2.2.3 A failure resulting in damage to <u>flight hardware</u> during the ground Acceptance Test Procedure (ATP) is not a mishap when **all** of the following are true:
- a. The failure is a predictable outcome.
- b. Only the flight article is damaged or failed, and testing did not damage the test stand or facility or cause personnel injury.
- c. The test equipment functioned properly.
- d. There were no anomalies in the facility or test procedures that could have contributed to the article failure.
- e. The test team performs a test failure analysis that identifies the root cause(s) of the failure and generates a technical report instead of treating it as a mishap and completing a mishap report.
- 1.2.2.4 Destruction of, or damage to, any property (public, private, or government) on a Center or involving NASA property outside the Center's gates, as a direct result of **only** the following weather conditions: hurricane, lightning, tornado, tidal wave, tsunami, water spout ice/snow loads (e.g., on electrical wires).

Note: In these cases, the weather is the initiating event (proximate cause) for the mishap. If the weather was an intermediate cause or a contributing factor to a mishap, this exemption to "mishap classification" would not apply.

1.2.2.5 Destruction of, or damage to, any property (public, private, or government) on a Center or involving NASA property outside the Center's gates, as a direct result of a natural phenomenon **such as** a flood, landslide, earthquake, meteoroid landing, or volcanic eruption.

Note: In these cases, the natural phenomenon is the initiating event (proximate cause) for the mishap. If the natural phenomena was an intermediate cause of an incident or contributed to a mishap, this exemption to "mishap classification" would not apply.

1.2.2.6 When an event is not considered a mishap because the initiating event (proximate cause) is natural phenomenon or weather, the cognizant Center safety office shall enter the event and a description of the damage in IRIS. (Requirement).

Note: Close calls involving aircraft may be entered into the NASA Aviation Anomaly Reporting System (NAARS) in lieu of IRIS.

Note: The cognizant Center safety office is the safety office of the Center that hosts the project or that has been assigned Safety and Mission Assurance (SMA) responsibilities for the program.

Note: NASA classifies all weather and natural phenomena as "Acts of Nature" in IRIS.

Incident Category: "Incident" Incident Type: "Acts of Nature"

Incident subtype: "wind, rain, snow, lightning, earthquake"

Classification: "Non-NPR 8621.1 issue"

- 1.2.2.7 When an event is not considered a mishap because the initiating event (proximate cause) is natural phenomenon or weather, the organization incurring the damage shall perform a technical assessment to evaluate design and construction aspects, contingency planning, and emergency response and provide facts, findings, and recommendations to the Center Director through the Center SMA Director (or equivalent office with responsibilities for the Center's facility safety program) (Requirement).
- 1.2.2.8 NASA property damage or personnel injuries that are the result of vandalism, riots, civil disorders, or felonious acts such as arson or sabotage are not considered NASA mishaps. These incidents should be reported and investigated in accordance with procedures under NPD 9800.1, NASA Office of Inspector General Programs, and NPR 1600.1, NASA Security Program Procedural Requirements.
- 1.2.3 Close Call. An event in which there is no injury or only minor injury requiring first aid and/or no equipment/property damage or minor equipment/property damage (less than \$1000), but which possesses a potential to cause a mishap.

# Mishap Classification Levels and Type of Investigation to be Conducted (NPR 8621.1)

Classification Level & Investigation Type	Property Damage	Injury
Type A Mishap	Total direct cost of mission failure and property damage is \$1,000,000 or more,  Or  Crewed aircraft hull loss has occurred, Or  Occurrence of an unexpected aircraft departure from controlled flight (except high performance jet/test aircraft such as F-15, F-16, F/A-18, T-38,OV-10 and T-34, when engaged in flight test activities).	Occupational injury and/or illness that resulted in: A fatality, Or A permanent total disability, Or The hospitalization for inpatient care of 3 or more people within 30 workdays of the mishap.
Type B Mishap	Total direct cost of mission failure and property damage of at least \$250,000 but less than \$1,000,000.	Occupational injury and/or illness has resulted in permanent partial disability.  Or  The hospitalization for inpatient care of 1-2 people within 30 workdays of the mishap.
Type C Mishap	Total direct cost of mission failure and property damage of at least \$25,000 but less than \$250,000.	Nonfatal occupational injury or illness that caused any workdays away from work, restricted duty, or transfer to another job beyond the workday or shift on which it occurred.
Type D Mishap	Total direct cost of mission failure and property damage of at least \$1,000 but less than \$25,000.	Any nonfatal OSHA recordable occupational injury and/or illness that does not meet the definition of a Type C mishap.
Close Call	An event in which there is no equipment/property damage or minor equipment/property damage(less than \$1000), but which possesses a potential to cause a mishap.	An event in which there is no injury or only minor injury requiring first aid, but which possess a potential to cause a mishap.

## **Attachment 3 – Interim Investigation Board Designation**

#### Investigation Authority Requirements (Extracted from NPR 8621.1 B)

#### **Appointing Authority**

- 1. Joint participation program with DoD or other agency: NASA Administrator
- 2. CD for A, B, and High Vis
- 3. DFRC S&MA Chief all others

#### General Membership Requirements - Members must

- 1. Be Federal Employee
- 2. Have odd # of voting members (Ex-officio, consultants, and advisors do not vote)
- 3. Have proper security clearance
- 4. Chairperson shall be independent of the program/project and preferred to not from the Center having oversight or responsibility for the activity
- 5. Not be in the direct chain of authority for day-to-day or line management of the activity
- 6. Have majority of voting members shall have no responsibility for the operation activity
- 7. Have sufficient experience and technical expertise to understand technology and management interfaces
- 8. Be composed as follows

Type Incident	IA Type	Member Requirements			Advisors	Ex-Officio
		Min Member #	Involves Injury illness or death	Aircraft involved		
Α	MIB	5	FS or OH	O,M,S,AS*,HF	L,PA,EC, ER	Yes
В	MIB	3	NR	O,M,S,AS*,HF	L,PA,EC, ER	Yes
С	MIT or MI	1	NR	(MIT-HF,S)	L,PA,EC, ER	MI – NR @
D	MIT or MI	1	NR	(MIT-HF,S)	NR	MI – NR @
Close Call	MIT or MI	1	NR	(MIT-HF,S)	NR	MI – NR @
High Vis	AA Call	1	NR	O,M,S,AS*,HF	NR	MI - NR
			Legei			
	B – Board T – Team	Chair + other members	FS – Flight Surgeon OH – Occupational Health Physician	O – Operations S – Safety AS – Aviation Safety HF – Human Factors M – Maintenance * AS may also be S	L – Legal PA – Public Affairs EC – Export Control ER – External Relations (opt)	NR – Not Required @ – Authority level consistent with Chair; may be a safety professional with selected responsibilities

#### **Training Requirements:**

POSITION	Training C	Training Currency (# Required/Desired)			
	Mishap process	Investigation skills	DCP S-047		
	and policy	and report	Requirements		
	demonstrated via	generation (every	every 3 years or		
	test* (yearly)	3 years) <sup>@</sup>	extended 1 year		
			with recent		
			experience		
Chair	1/All and refresher	1/All and refresher	All must have		
Members^	over 3 years	over 3 years	training to include		
Ex-officio	Must have and	Must have and	Human Factors#		
	refresher over 3	refresher over 3	and Root Cause		
	years	years	Analysis <sup>#</sup> for		
			investigation		
Consultants and	0/All and refresher	0/All and refresher	No additional		
Advisors	over 3 years	over 3 years			
Legend					
^ HF member must	* Satisfied by	Satisfied by Aircraft	* Satisfied by		
have special training	Introduction to Mishap	& Space Shuttle	SATERN courses or		
	Investigations (SATERN)	Crash Investigation (SATERN)	equivalent		

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S	Date:	
TO:	Appointed Investigation Authority	
FROM:	Appointing Official	
SUBJECT:	Interim Investigation Authority Appointment	
Authority (IA) the IA, you a responsibility This is your p be resolved of management responsibility will be reque Directorate. authority is e Though you a with NASA d authority. If y Henwood (x5 refresher trai individuals be the front end parallel with a those respon responders a will be subject control of the IA Cha Safety Pilot N Mainte Huma	g individuals are immediately appointed as the interimal of for the	shap / close call. As have full of NPR 8621.1. Assigned work cannot d through can relieve you of this arged to the RAD: ate the investigation of the conting official (AO). Activity in accordance the permanent direct those to Bart dediately schedule ementioned are already executing reserving evidence, in these immediate e responsibility. You

Public Affairs	s Advisor:
Ex Officio: _	
(Note - not all posit	ions may be required for a given class of incident)

**Appointing Official** 

CC:

XX/Deputy Director
XX/Chief Engineer
XM/Associate Director for Management
XO/Associate Director for Operations
XP/Associate Director for Programs
O/Flight Operations Director
O/Aviation Safety Officer
S/Chief S&MA
S/Aviation Safety Manager

#### **Attachment 4 – Evidence Collection**

#### Aircrew Information

In general, the aircrew will leave the aircraft in the incident condition unless an unsafe condition exists. The aircrew should take the minimum steps to safe the aircraft and record their actions in a memo to the investigation authority. It is important that the aircrew pull circuit breakers for any flight data and voice recorders on board as soon as possible after the incident. This action does not take precedence over safe evacuation of the aircraft. Statements will be taken from all personnel on board the aircraft. Tox screening will be taken for all aircrew that had safety-critical tasks for the flight and will be obtained by a designated team with authorization.

Item #	Description	Location	Initials upon Collection
1	Flight Plan (on file with ATC)	ATC	
2	Flight Plan (Aircrew Copy)	Aircraft/ Ops Desk	
3	Aircraft Mission Weight & Balance	Aircraft/ Ops Desk	
4	Aircrew copy of NOTAMS	Aircraft/Ops Desk (posted)	
5	Flight Data Recorder (cut power)	Aircraft	
6	Voice Recorder (cut power)	Aircraft	
7	Aircrew Fuel Log	Aircraft	
8	Aircraft Weight & Balance Log	Flight Ops	
9	Takeoff Data	Aircraft	
10	Aircrew Checklists used on aircraft	Aircraft	
11	Onboard Aircrew Publications	Aircraft	
12	Aircrew Training Folder	Ops Desk	
13	Aircrew Currency Summary	Ops Desk	
14	FCIF/Pubs Card	Ops Desk	
15	Picture of Scheduling Board	Ops Desk	
16	Safety Training Records	Ops Desk	
17	Aircraft Tech Order with Fact Sheet	Ops Desk	
18	Aircrew Statements (includes 72 hour history	Each Aircrew	
19	Airfield Status (active runway, RCR, lighting, taxiways status, etc)	Tower	
20	Lakebed Status	Tower	
21	NAVAID Status	Base Ops	
22	NOTAMS, (local, en route)	NOTAM service	
23	Passenger Manifest	Ops Desk/Departure Location	
24	Current Weather Data	412 <sup>th</sup> OSS/OSW	
25	Local Crash & Rescue Report	Local Responder	
26	ATC, Tower and/or SPORT radar, video and audio recordings	Local Controllers	
27	Life Support Training Records	Life Support Office	
28	Test Procedures/Plan	Ops Engineering	

#### **Maintenance Information**

Any cargo or serviceable items should remain on board the aircraft for the investigation team to assess and release. In general, the aircraft should remain untouched and unpowered in the incident condition unless a specific switch position or item/subsystem represents a safety hazard in the incident condition/state. If actions are taken to safe the aircraft, these actions will be annotated in a memo that will be submitted to those individuals tasked to collect evidence. Statements will be requested from each individual who performed maintenance/preflight activity on the aircraft within the last 24 hours. Tox screening will be taken for all maintenance personnel who had safety critical tasks for the aircraft and will be obtained by a designated team with authorization.

Item #	Description	Location	Initials upon Collection
1	Aircraft Maintenance Records: Forms, Automated Records	MOO/ Deployed Maintenance	
2	Fuel Servicing Records	MOO/ Deployed Maintenance	
3	Oxygen Servicing Records: aircraft, servicing cart	MOO/ Deployed Maintenance	
4	Hydraulic Servicing Records including servicing cart	MOO/ Deployed Maintenance	
5	Maintenance Personnel Witness Statements (72 hour history)	Each Individual	
6	Flight Data Recorder (pull CB)	Aircraft	
7	Voice Recorder (pull CB)	Aircraft	
8	Life support in shop maintenance records	Life Support	
9	Fuel Sample	Crash Site/Fuel Truck	
10	Oxygen Sample	Crash Site/Oxygen Truck	
11	Hydraulic Fluid Sample	Crash Site/Source Reservoir	
12	Maintenance Tech Order/Checklist	Hangar	
13	Tech Order Status	TO Library Database, Bldg 4800 Rm 1112	
14	Work Order system records	Drawing Control/Ops Engineering	
15	Aircraft Drawings	Area A	
16	System Test Procedures	Control Room	
17	Parts Control Tags	SQ/ Aircraft work area	
18	Quarantine & Photo document Maintenance work area	Aircraft maintenance work area	
19	Work closeout photos	Photo lab	
			•

### **Attachment 5 – Aircraft Mishap Notification**

When informed of an aircraft mishap, contact the following personnel immediately.

Name	Telephone Work / Home	Date / Time Notified
DFRC Director		
Chief, Safety & Mission Assurance		
Director of Flight Operations		
Chief, Security Office		
Photography Office		
Chief, Aircraft Maintenance		
Medical Officer		
Associate Director for Operations		
Associate Director for Programs		
Associate Director for Management		
Chief Engineer		
Chief Counsel Chief, Public Affairs Office Personnel Officer EAP Officer		
COTR, Support Service Contract		
OTHERS: Chief Pilot Code F Code R Environ/Health/Safety		
Paging	Dial '0' twice	

#### **NASA Headquarters Notification Roster**

The following offices are contacted after a Center contacts the Headquarters' OSMA/ SARD office for a Type A, B, or high visibility incident.

Any member can send a message to this list. Messages must be brief – no photos, graphics, or attachments. Address messages to <a href="missages">missages</a> missages must be brief – no photos, graphics, or attachments. Address messages to <a href="missages">missages</a> missages must be brief – no photos, graphics, or attachments.

#### Majordomo "Mishap" List Server Email Addresses (last updated 1/8/07)

List Keeper: Mr. Eric Raynor, NASA HQ OSMA, Mail Suite 5V79-B, eric.c.raynor@nasa.gov

#### Active Members: (Listed in Order of Organization/Office)

- Administrator/Mr. Griffin
- Deputy Administrator/Ms. Dale
- Associate Administrator/Mr. Geveden
- Chief of Staff/Mr. Morrell
- White House Liaison & Deputy Chief of Staff/Mr. Jezierski
- Assistant Administrator for Security and Program Protection/Mr. Saleeba
- Associate Administrator for Aeronautics Research Mission Directorate/Dr. Porter
- Associate Administrator for Exploration Systems Mission Directorate/Dr. Horowitz
- Associate Administrator for Institutions and Management/Mr. Scales
  - o Assistant Administrator for Diversity and Equal Opportunity/Ms. Manuel
  - Assistant Administrator for Human Capital Management/Ms. Dawsey
  - Assistant Administrator for Infrastructure and Administration/Ms. Dominguez
    - Mr. Abbed
    - Mr. Gookin
    - Mr. McNeill
    - Mr. Walker
  - o Assistant Administrator For Procurement/Mr. Luedtke
  - o Assistant Administrator for Small and Disadvantaged Business Utilization/Mr. Delgado
    - Ms. Wilson
  - Executive Director, NSSC/Mr. Arbuthnot
- Associate Administrator for Program Analysis and Evaluation/Dr. Pace
- Associate Administrator for Science Mission Directorate/Dr. Cleave
  - o Mr. Luther
- Associate Administrator for Space Operations Mission Directorate/Mr. Gerstenmaier
- Chief Engineer/Mr. Scolese
- Chief Financial Officer/Ms. Sykes
- Chief Health and Medical Officer/Dr. Williams
  - o Ms. Angotti
- Chief Information Officer/Dr. Pettus (Acting)
- Chief Safety and Mission Assurance Officer /Mr. O'Connor
  - o Deputy Chief Safety and Mission Assurance Officer/Mr. Lloyd
    - Mr. Frazier
    - Ms. Loewy
    - Ms. Wijdoogen
  - o Aerospace Safety Advisory Panel/Mr. Marinaro
  - Mission Support Division/Mr. Tinsley
    - Mr. Bellinger
    - Mr. Kowaleski
    - Mr. Martin

- Mr. Moyer
- Mr. Napala
- Ms. Richardson
- Ms. Sandin
- Mr. White
- Safety and Assurance Requirements Division/Mr. Stamatelatos
  - Ms. Chandler
  - Mr. Dezfuli
  - Mr. Dook
  - Ms. Purvis
  - Mr. Greulich
  - Mr. Harkins
  - Mr. Hughitt
  - Mr. Lyver
  - Mr. Loewy
  - Mr. Mullin
  - Mr. Prassinos
  - Mr. Raynor
  - Mr. Vesely
  - Ms. Wetherholt
- Review and Assessment Division/Mr. Castellano (Acting)
  - Mr. Boldon
  - Mr. Lee
  - Mr. Mielec
  - Mr. Sirota
  - Mr. Wander
  - Ms. Weber
- Chief of Strategic Communications/Mr. Sterner
  - o Assistant Administrator for Communications Planning/Mr. Hopkins
  - Assistant Administrator for Education/Dr. Winterton
  - Assistant Administrator for External Relations/Mr. O'Brien
  - Assistant Administrator for Legislative Affairs/Mr. Chase
  - Assistant Administrator for Public Affairs/Mr. Mould
    - Mr. Beutel
    - Mr. Harrington
  - o Director, Innovative Partnerships Program Office/Mr. Comstock
  - o Director, Integrated Enterprise Management Program/Mr. German
  - o Director, Office of Program and Institutional Integration/Mr. Keegan
- General Counsel/Mr. Wholley
  - o Mr. Sefton
  - Mr. Thomas
- Inspector General/Mr. Cobb
  - o Ms. Gorman
  - o Mr. Karnetsky
  - o Mr. Winters

#### **Directors, NASA Centers**

- Ames Research Center/Dr. Worden
- Dryden Flight Research Center/Mr. Petersen
- Glenn Research Center/Dr. Whitlow
- Goddard Space Flight Center/Dr. Weiler
- IV&V/Mr. Caffall
- Jet Propulsion Laboratory/Dr. Elachi
- Johnson Space Center/Mr. Coats

- Kennedy Space Center/Mr. Parsons
- Langley Research Center/Ms. Roe
- Marshall Space Flight Center/Mr. King
- Stennis Space Center/Dr. Gilbrech

#### **SMA Directors, NASA Centers**

- Ames Research Center/Mr. Dudley
  - o Mr. King
  - o Mr. Washington
- Dryden Flight Research Center/Mr. Davis
- Glenn Research Center/Mr. Wessel
  - o Mr. Sanabria
  - o Ms. Otero
- Goddard Space Flight Center/Mr. Watkins
- Jet Propulsion Laboratory/Mr. Landano
- Johnson Space Flight Center/Ms. Marshall
  - o Mr. Gremillion
  - o Mr. Hulet
  - o Mr. Johnson
  - o Mr. Loyd
  - o Ms. Menard
  - WSTF/Mr. Hall
  - o WSTF/Ms. McLaughlin
- Kennedy Space Center/Ms. Bartell
- Langley Research Center/Mr. Malone (Acting)
- Marshall Space Flight Center/Mr. Malone
- NASA Safety Center/Mr. Phillips
- Stennis Space Center/Mr. Smiles
  - o Mr. Cenci
  - o Mr. Douglas
  - o Mr. Hey
  - o Mr. Liebig

#### Cc:

- Assistant Associate Administrator/Ms. Johnson
- Director, Strategic Investments/Mr. Shank
- Executive Secretariat/Mr. Box
- Office of the Administrator/Ms. Mays
- Office of the Administrator/Ms. Sweeney
- Office of the Deputy Administrator/Dr. Keiser
- Office of the Deputy Administrator/Ms. Potter

- END -

file name: MISHAPmajordomo.list.doc

#### Attachment 6 – NTSB Notification

This report is made to the regional NTSB office where the mishap occurred. In most cases that would be the Southwest region. They can refer you to the appropriate regional office. After hours, notification is made to NTSB Headquarters. Notify HQ Safety Assurance Requirements Division that NTSB notification has been completed. Within 10 workdays of an aircraft mishap or close call that meets the reporting requirements as defined in Figure 3 and paragraph 1.6.2 of this NPR, the Center Chief of Aircraft Operations shall submit an NTSB Form 6120 (<a href="http://www.ninfc.com/forms/NTSB6120.pdf">http://www.ninfc.com/forms/NTSB6120.pdf</a> ) to the NTSB regional office nearest to the location of the mishap or close call.

Southwest Regional Office 7:00 am - 3:30 pm (PT)	1515 W. 190th Street Suite 555 Gardena, California 90248	Phone: 310-380-5660 FAX: 310-380-5666	Arizona, California, Hawaii, Nevada, Pacific Islands in the U.S. Trust Territories
NTSB HQ After Hours	4390 L'Enfant Plaza East, SW Wash, DC 20594	Phone: (202) 314-6290 FAX: (202) 314 6293	All Regions

NTSB Notification is mandatory for a class of events as defined below. This criteria is taken from 49 CFR Part 830, Notification and Reporting of Aircraft Accident or Incidents and Overdue Aircraft, and Preservation of Aircraft Wreckage, Mail, Cargo, and Records.

#### **All Aircraft**

- Flight control system malfunction or failure
- All aircraft accidents with substantial damage. (See Part 830 excerpt below for definitions of substantial damage and accident)
- Inability of any required flight crewmember to perform normal flight duties as a result of injury or illness
- Failure of structural components of a turbine engine, excluding compressor and turbine blades and vanes
- In-flight fire
- Aircraft collision in flight
- Damage to property other than the Agency aircraft

## For large multiengine aircraft (more than 12,500 pounds maximum certificated take-off weight)

 In-flight failure of hydraulic systems that results in sustained reliance on the sole remaining hydraulic or mechanical system for movement of flight control surfaces

- Sustained loss of the power or thrust produced by two or more engines
- An evacuation of an aircraft in which an emergency egress system is used
- An aircraft is overdue and is believed to have been involved in a mishap or close call

#### **Table 1 – NTSB Reportable Accidents**

Information required for all reportable agency aircraft mishaps and close calls:

1.	Type, nationality, and registration marks of the aircraft	
2.	Name of owner and operator of the aircraft	
3.	Name of the pilot in command	
4.	Date and time of the mishap, malfunction, or failure	
5.	Last point of departure and point of	
	intended landing of the aircraft	
6.	Position of the aircraft with reference to	
	some easily defined geographical point	
7.	Number of persons aboard and number	
	killed or seriously injured	
8.	Nature of the mishap or occurrence, the	
	weather, and the extent of damage to the	
	aircraft, so far as is known	
9.	A description of any explosives,	
	radioactive materials, or other dangerous	
	articles carried	

**Table 2 – Required NTSB Report Information** 

#### **NTSB Notification Checklist**

Step #	Action	Accomplished (Initial the Block)	Time / Date
1	Determine whether the incident is reportable based on the criteria in Table 1, page 81.  Reportable Yes □ No □		/
2	If reportable, complete attached form detailing the required information listed in Table 2, page 81.		/
3	Report required information to the NTSB at the listed contacts.  NTSB Contact  Faxed information to  Phone #		/
4	Complete and transmit NTSB Form 6120 within 10 days of the event.  NTSB Contact  Faxed information to  Phone #		/

#### National Transportation Safety Board

§830.2

PART 830—NOTIFICATION AND RE-PORTING OF AIRCRAFT ACCI-OR INCIDENTS AND DENTS OVERDUE AIRCRAFT, AND PRES-ERVATION OF AIRCRAFT WRECK-AGE. MAIL. CARGO, AND RECÓRDS

#### Subpart A—General

Sec.

830.1 Applicability.

830.2 Definitions.

#### Subpart B—Initial Notification of Aircraft Accidents, Incidents, and Overdue Aircraft

830.5 Immediate notification.

830.6 Information to be given in notification.

#### Subpart C—Preservation of Aircraft Wreckage, Mail, Cargo, and Records

830.10 Preservation of aircraft wreckage, mail, cargo, and records.

#### Subpart D—Reporting of Aircraft Accidents, Incidents, and Overdue Aircraft

830.15 Reports and statements to be filed.

AUTHORITY: Federal Aviation Act of 1958, as amended (49 U.S.C. 40101 et seq.), and the Independent Safety Board Act of 1974, as amended (49 U.S.C. 1101 et seq.).

SOURCE: 53 FR 36982, Sept. 23, 1988, unless otherwise noted.

#### Subpart A—General

#### § 830.1 Applicability.

This part contains rules pertaining to:

- (a) Initial notification and later reporting of aircraft incidents and accidents and certain other occurrences in the operation of aircraft, wherever they occur, when they involve civil aircraft of the United States; when they involve certain public aircraft, as specified in this part, wherever they occur; and when they involve foreign civil aircraft where the events occur in the United States, its territories, or its
- (b) Preservation of aircraft wreckage, mail, cargo, and records involving all civil and certain public aircraft accidents, as specified in this part, in the

United States and its territories or possessions.

[60 FR 40112, Aug. 7, 1995]

#### §830.2 Definitions.

As used in this part the following words or phrases are defined as follows:

Aircraft accident means an occurrence associated with the operation of an aircraft which takes place between the time any person boards the aircraft with the intention of flight and all such persons have disembarked, and in which any person suffers death or serious injury, or in which the aircraft receives substantial damage.

Civil aircraft means any aircraft other

than a public aircraft.

Fatal injury means any injury which results in death within 30 days of the accident.

Incident means an occurrence other than an accident, associated with the operation of an aircraft, which affects or could affect the safety of operations.

Operator means any person who causes or authorizes the operation of an aircraft, such as the owner, lessee, or bailee of an aircraft.

Public aircraft means an aircraft used only for the United States Government, or an aircraft owned and operated (except for commercial purposes) or exclusively leased for at least 90 continuous days by a government other than the United States Government, including a State, the District of Columbia, a territory or possession of the United States, or a political subdivision of that government. "Public aircraft" does not include a governmentowned aircraft transporting property for commercial purposes and does not include a government-owned aircraft transporting passengers other than: transporting (for other than commercial purposes) crewmembers or other persons aboard the aircraft whose presence is required to perform, or is associated with the performance of, a governmental function such as firefighting, search and rescue, law enforcement, aeronautical research, or biological or geological resource management; or transporting (for other than commercial purposes) persons aboard the aircraft if the aircraft is operated by the Armed Forces or an intelligence agency of the United States.

#### § 830.5

Notwithstanding any limitation relating to use of the aircraft for commercial purposes, an aircraft shall be considered to be a public aircraft without regard to whether it is operated by a unit of government on behalf of another unit of government pursuant to a cost reimbursement agreement, if the unit of government on whose behalf the operation is conducted certifies to the Administrator of the Federal Aviation Administration that the operation was necessary to respond to a significant and imminent threat to life or property (including natural resources) and that no service by a private operator was reasonably available to meet the threat.

Serious injury means any injury which: (1) Requires hospitalization for more than 48 hours, commencing within 7 days from the date of the injury was received; (2) results in a fracture of any bone (except simple fractures of fingers, toes, or nose); (3) causes severe hemorrhages, nerve, muscle, or tendon damage; (4) involves any internal organ; or (5) involves second- or third-degree burns, or any burns affecting more than 5 percent of the body surface.

Substantial damage means damage or failure which adversely affects the structural strength, performance, or flight characteristics of the aircraft, and which would normally require major repair or replacement of the affected component. Engine failure or damage limited to an engine if only one engine fails or is damaged, bent fairings or cowling, dented skin, small punctured holes in the skin or fabric, ground damage to rotor or propeller blades, and damage to landing gear, wheels, tires, flaps, engine accessories, brakes, or wingtips are not considered "substantial damage" for the purpose of this part.

[53 FR 36982, Sept. 23, 1988, as amended at 60 FR 40112, Aug. 7, 1995]

#### Subpart B—Initial Notification of Aircraft Accidents, Incidents, and Overdue Aircraft

#### §830.5 Immediate notification.

The operator of any civil aircraft, or any public aircraft not operated by the

#### 49 CFR Ch. VIII (10-1-02 Edition)

Armed Forces or an intelligence agency of the United States, or any foreign aircraft shall immediately, and by the most expeditious means available, notify the nearest National Transportation Safety Board (Board) field office 1 when:

- (a) An aircraft accident or any of the following listed incidents occur:
- Flight control system malfunction or failure;
- (2) Inability of any required flight crewmember to perform normal flight duties as a result of injury or illness;
- (3) Failure of structural components of a turbine engine excluding compressor and turbine blades and vanes;
  - (4) In-flight fire; or
  - (5) Aircraft collide in flight.
- (6) Damage to property, other than the aircraft, estimated to exceed \$25,000 for repair (including materials and labor) or fair market value in the event of total loss, whichever is less.
- (7) For large multiengine aircraft (more than 12,500 pounds maximum certificated takeoff weight):
- In-flight failure of electrical systems which requires the sustained use of an emergency bus powered by a back-up source such as a battery, auxiliary power unit, or air-driven generator to retain flight control or essential instruments;
- (ii) In-flight failure of hydraulic systems that results in sustained reliance on the sole remaining hydraulic or mechanical system for movement of flight control surfaces;
- (iii) Sustained loss of the power or thrust produced by two or more engines; and
- (iv) An evacuation of an aircraft in which an emergency egress system is utilized.
- (b) An aircraft is overdue and is believed to have been involved in an accident.

[53 FR 36982, Sept. 23, 1988, as amended at 60 FR 40113, Aug. 7, 1995]

<sup>1</sup>The Board field offices are listed under U.S. Government in the telephone directories of the following cities: Anchorage, AK, Atlanta, GA, West Chicago, IL, Denver, CO, Arlington, TX, Gardena (Los Angeles), CA, Miami, FL, Parsippany, NJ (metropolitan New York, NY), Seattle, WA, and Washington, DC.

### **Attachment 7 – Witness Statement Form**

#### **Witness List**

Name	Phone #	Address	Location at time of incident	Activity at time of incident

Name	Phone #	Address	Location at time of incident	Activity at time of incident

#### **Witness Statement**

It is important that witnesses complete a statement as soon as possible after the occurrence of a mishap in order to obtain the best recall of information that might assist in the identification of causal factors. Immediately after a mishap, the Witness Statement must be completed by the witness. The written statement is intended to provide the witness's account of the mishap, including a description of the sequence of events, facts, conditions, and/or causes of the mishap. The witness will give the completed form directly to a member of the NASA Center Safety Office or the NASA Interim Response Team.

The purpose of the NASA safety mishap investigation is to identify the proximate cause(s) and root cause(s) of the mishap and to develop recommendations that prevent the occurrence of similar mishaps. The NASA safety mishap investigation process conducted per NASA Procedural Requirements 8621.1B (NPR 8621.1B) does not assess blame and is completely separate from any proceedings the Agency may undertake to determine civil, criminal, or administrative culpability or liability.

Your testimony is entirely voluntary, but we hope that you will assist the investigating authority to the maximum extent of your knowledge of this matter.

Your testimony will be documented and retained as part of the mishap report background files, but will not be publicly released with your name as part of the mishap report. The investigating authority will make every effort to keep your testimony confidential and privileged to the greatest extent permitted by law.

Note: There are three circumstances when your testimony may be released from the control of the investigating authority and would no longer be considered privileged:

- 1. When the investigating authority or NASA is ordered to release the testimony by a court or administrative body outside NASA.
- 2. When the Inspector General (IG) makes a written request to the NASA Administrator. The IG, by law, is permitted access to all records, reports, audits, reviews, documents, papers, recommendations, or other material available to the applicable establishment which relate to programs and operations. The Office of Inspector General rarely makes this request. The IG respects and, as a general rule, will defer to the disclosure restrictions attendant to NASA mishap investigations. Upon receipt of such testimonial information, the IG will consider it to be confidential witness testimony and will treat it as such to the full extent required by the Inspector General Act of 1978.
- 3. When NASA experiences the loss of a Space Shuttle, the loss of the International Space Station or its operational viability, or the loss of any other U.S. space vehicle carrying humans. For these cases, by law, an independent Presidential Commission will be formed and the contents of this written statement may be provided to the Commission.

I have read the above information and understand that NASA will make every effort to protect the information provided to the greatest extent permitted by law, and I understand the three circumstances when my testimony may be released.

Signature:

Witness Statement
Date of Witness Statement:
Time of Witness Statement:
<u>Witness</u>
Name: Phone:
Email:
Company/Department:
Mail Code: Job Title:
Age: Years in Job:
Time of Mishap:
Your Location at Time of Mishap. (If needed, you may draw on the back of this form to
show your location in reference to other objects, equipment, or people.):
Building/Hangar, Ramp Location, etc.
Additional Details About Your Location:
Your Activity At Time of Mishap:

Page 1 of 3

Name:
Please describe to the best of your memory <b>what happened</b> at the time of the mishap.
Continue description of what happened at the time of the mishap. You may write on
the back of this form (or request another page) if you need additional space.
Additionally, please summarize your work schedule and off-duty activities to include
sleep and eating habits over the preceding 72 hours.

Page 2 of 3

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Name:		
Please describe why you think the mishap occurred.		

Aircraft Incident Response Checklist	DCP S-001, Revision G-1 Expires April 14, 2013 Page 92 of 104
Witness Signature	

### **Attachment 8 – Telephone Record Log**

### **Incident Telephone Log**

Location: _	POC: _	Date:	
Time	Caller/Organization	Message	

### **Attachment 9 – Drug Testing Authorization Forms**

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S						
	Date					
TO:	Individual's Name/Company					
FROM:	Center Director					
SUBJECT:	Mishap Drug Testing Authorization					
authorizes yo aircraft S/N _ medical mem Health Clinic	te with NPR 8621.1, this letter with your company's attached authorization our mandatory participation in drug testing as a result of your duties with on You will immediately report to the nber of the immediate mishap response team,, the DFRC, or the NASA On-Scene Commander,, to complete Completion of drug testing is required before you will be released from					
Kevin L. Pete	ersen					
Attachment:	Contractor Authorization Letter					
	stigation Officer Scene Commander					

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S	Date			
TO:	Individual's Name			
FROM:	Center Director			
SUBJECT:	Γ: Mishap Drug Testing Authorization			
drug testing response tea	ce with NPR 8621.1, this letter authorizes your mandatory participation in as a result of your duties with aircraft S/N on on You will immediately report to the medical member of the immediate am or the NASA On-Scene Commander to complete this testing. of drug testing and a written witness statement are required before you will from duty.			

CC:

Kevin L. Petersen

X/Medical Officer S/Initial Investigation Officer O/NASA On-Scene Commander H/Personnel Office

### **Attachment 10 – Headquarters OSMA 24-Hour Report**

Reporting Center: Dryder	Flight Research C	enter	
Author:	Pho	ne: (661) 276-2500	M/S: 2128
Date of Report:	Time	e Submitted:	
Incident Date:	Incident Time:		
Incident General Location	:		
Incident Exact Location (if	known):		
Responsible Organization	(RO): Code O, Fli	ght Operations Direct	orate
RO Point of Contact:		Phone: (661) 276-	M/S:
Mission Affected:			
Program Impact (if known	):		
Type of Injuries/Fatalities	(if known):		
Damage to Equipment: Flight Hardware: Flight Software: Facilities:			
Damage Direct Cost Estin	nate: \$		

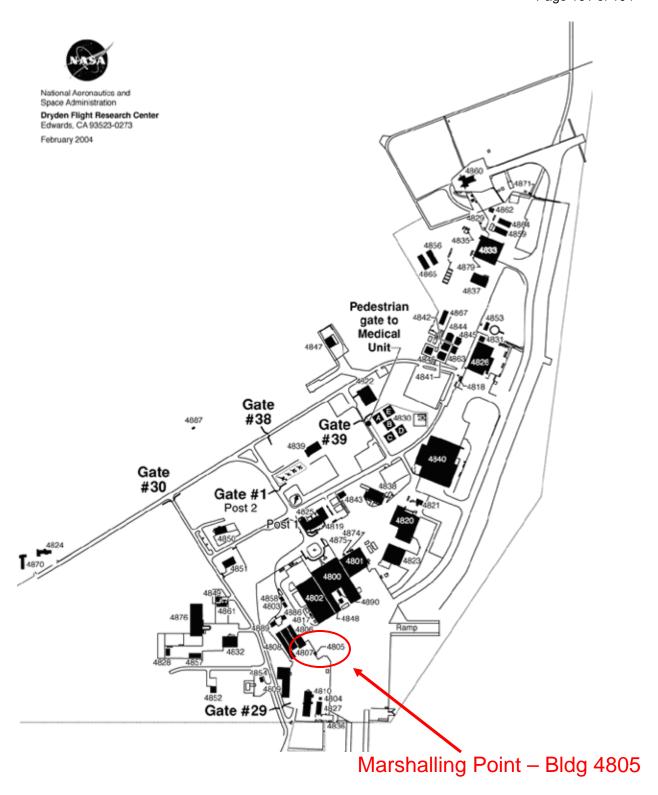
Aircraft Incident Response Checklis	Aircraft	Incident	Response	Checklis
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Brief Description of	incident:	
NTSB Notification:	Regional Office:	Phone:

Date/Time:

### **Attachment 11 – IRT Marshalling Point**



# Attachment 12 – Internal E-mail Page for Employee Awareness

The following should be considered as a starting point for developing a page or email to be disbursed to Dryden employees to contain speculation and remind employees of the correct process for inquiries.

"A NASA research aircraft has been involved in an accident at <location> and <date/time>. All employees are reminded to send all inquiries on the incident to the Public Affairs Office, extension 3449. Please do not acknowledge the incident to people outside of Dryden or speculate on the cause of the incident with anyone. An update will be sent out when information becomes available."

#### **Document History Log**

This page is for informational purposes and does not have to be retained with the document.

Status Change	Document Revision	Effective Date	Page	Description of Change	
Baseline	_	12-14-98			
Revision	А	04-19-99	All	Updated Tab E and deleted excess page numbers	
Revision	В	02-07-00	All	Added signature block on cover page, updated Tab G, and misc. changes throughout document	
Revision	С		16	Pamoved parennal phone numbers from page 16 and	
Revision	D	06-23-03	All	Updated phone numbers through document	
Revision	E	11-05-03	21 24 26	<ul> <li>Changed name of Flight Operations Deputy Director to Flight Operations Secretary. Changed phone number to 3209.</li> <li>Updated Aircraft Maintenance Operations phone number</li> <li>Updated Avionics Branch (Comm. Vehicle) phone number</li> <li>Updated phone numbers in listing 10</li> <li>Updated phone numbers in listing 12 and added Duty NCO listing and phone</li> <li>Updated Code QS normal duty hours phone number</li> <li>First block, updated NASA HQ Safety phone number</li> </ul>	
Admin Change	E	01/30/04	All	Change NPG to NPR per HQ direction of 12/05/03	
Revision	F	04-13-04	24	Update phone numbers for Tab H 4, normal duty hours, Code SQ.	
Admin Change	F	09-21-04	21, 24, 32	Updated phone numbers	
Admin Change	F	05-4-05	6, 21, 24,	Updated phone numbers	
Admin Change	F	08-02-05	21, 24	<ul> <li>Updated phone numbers</li> <li>Removed reference to Code Y</li> <li>Format changes to improve reading ease and consistency</li> </ul>	
Admin Change	F	03-29-06	20, 23, 31	<ul> <li>Updated phone numbers</li> <li>Deleted Duty NCO listing, page 20, item 12</li> <li>Deleted Wilson Harkins, page 23, item 4</li> <li>Reordered phone number list, page 31, item 2</li> </ul>	
Admin Change	F	04-11-06	47	Corrected Document History Log.	
Admin Change	F	09-20-06	20, 23, 31	<ul> <li>Updated item 12, Squadron Ops phone numbers</li> <li>Updated item 2, QA phone number</li> <li>Updated item 2, added cell phone number</li> </ul>	
Revision	G-Redline	01-11-08	All	REDLINE. 90-DAY LIMIT. This document will be revised within 90 days.  Reformatted document to DCP template Rewrote checklists and attachments to comply with NPR 8621.1B	

Status Change	Document Revision	Effective Date	Page	Description of Change
Revision	G	04-15-08	All	Changes to approximately 25% of document, incorporating changes from IPP review of Redline version
Admin Change	G-1	07-21-08	All	Corrected expiration date on title page and in headers